



Ukraine IT Report 2021

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Foreword



Konstantin Vasyuk

Executive Director, IT Ukraine Association

“Over the past 25 years, the Ukrainian IT sector has made a quantum leap forward. Starting almost from scratch, it has turned into a highly intelligent industry, employing almost **300 thousand professionals** and growing by 25-30% annually.

It already **tops the list** of service exporters (over \$ 5 billion per year) and generates more than **4% of Ukraine’s GDP**. Ukraine is now one of the largest exporters of IT services in Europe, but what if I tell you that this is just the beginning?

For the first time in its history, the IT industry is no longer a niche sector, instead it is becoming fashionable almost everywhere: according to this year’s survey **54% of Ukrainian high school students** want to work in IT. And majors such as “Computer Science” and “Software Engineering” in Ukrainian universities have attracted **more than 80 thousand** applications from prospective students.

At the same time, companies continue to invest in education and training for their personnel, new modern educational platforms are emerging, and the number of graduates with IT-related majors is growing rapidly. Meanwhile, from the government, we expect a favorable tax environment for the IT sector.

The above attests to the fact that these are just the first steps in our journey to great success. On behalf of the IT Ukraine Association, I invite you to have a look at this survey of the Ukrainian IT industry, where, using the language of numbers, we will tell you what the industry is like, what its prospects are, and why you should join it now.”

Methodology

1. Key sources of information

- Data from the Unified State Register of Enterprises and Organizations (EDRPOU).
- Data from the Ministry of Education and Science of Ukraine (Actual admission and graduation rates in higher education) .
- Request to the State Tax Service regarding the number of individual entrepreneurs who have declared income and the amount of tax collections.
- Request to the State Statistics Service regarding the number of operating legal entities and the number of full-time IT staff.
- Korn Ferry survey on salaries in the IT industry.
- Findings of the survey of IT companies conducted by the research company MZ Hub.
- Open investment (UVCA, AVentures) and industry-specific sources (dou.ua, ain.ua, clutch.co, dealroom.co, techecosystem.gov.ua), websites of IT companies.

2. Approach to data analysis

- Data from official sources have been solicited based on the following KVED (Classifier of Economic Activities) codes:
 - 58.21 Computer games publishing.
 - 58.29 Other software publishing.
 - 62.01 Computer programming.
 - 62.02 Consulting on informatization.
 - 62.03 Computer hardware management activities.
 - 62.09 Other activities related to information technology and computer systems.
 - 63.11 Data processing, posting information on websites and related activities.
- To estimate the number of IT companies and the number of IT professionals, additional calculations were made and the data received in response to requests were compared with those from open sources and other industry-specific research.

3. Approach to assessment and forecasting

- The report contains short-term (up to one year) estimates and medium-term (until 2025) forecasts.
- Short-term estimates are based mostly on the current trends.
- For medium-term forecasts, the expert group used a predictive model for the sector.
- The end results of the forecasting and assessment were adopted by the expert group by consensus.
- Long-term forecasts might have to be corrected if any unexpected major should external influences affect the industry.

4. Survey

- The study covered 98 companies, of which 72 provided answers to all the questions of the questionnaire.
- Survey method: online self-completion of the questionnaire. The questionnaire was posted at <https://mzhub.pro/itindustry-start/>.
- Representatives of the management of IT companies were attracted to the survey via invitations sent to the members of the regional clusters of IT Ukraine Association.
- The survey results correspond to the structure of IT companies that are members of industry associations in terms of the size and cover most regions of Ukraine.

If you require any further information about the research methodology, please contact us at info@itukraine.org.ua.

Ukraine as an IT State

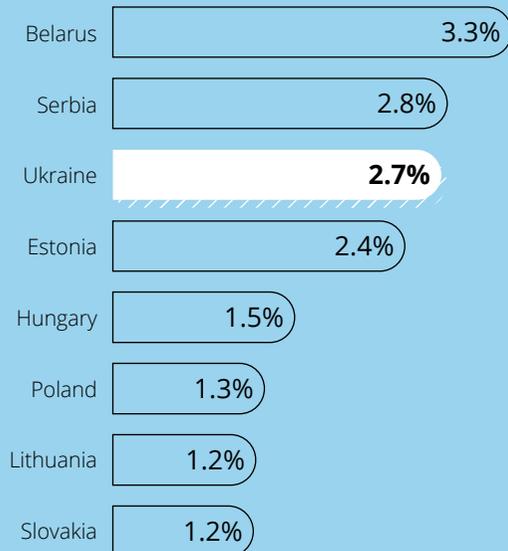
The global IT market is growing rapidly. Ukraine has advantages on the IT market compared to its nearest competitor countries:

- The largest labor market.
- The largest number of graduates with IT specialization.

In Ukraine there are 2-4 times fewer IT specialists per 100 thousand people than in competitor countries. This indicates a high potential for the expansion of employment in the IT field through formal education and retraining (switching).

Computer services are an important component of the Ukrainian economy

Share of computer services exports in GDP*, %



Ukraine has the largest labor market

Size of the labor market*, million persons



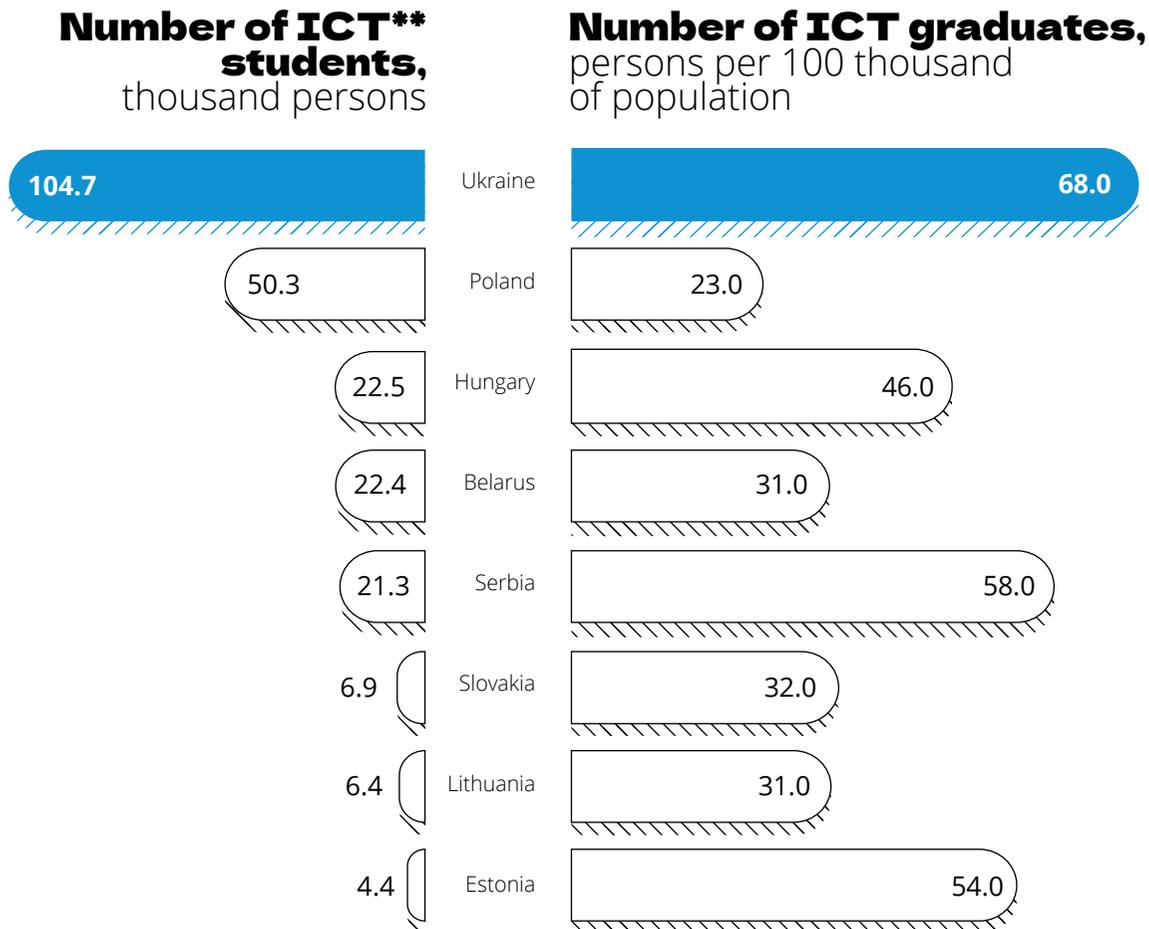
Ukraine has a large number of ICT** specialists

Number of ICT** specialists, thousand persons



Ukraine as an IT State

Ukraine is positively assessed according to global and European ratings. The national education system trains a significant number of specialists for the IT industry*.



94/100

According to Open Data Maturity 2021, Ukraine sets the trend in Europe for data opening, because it ranks 6th in Europe

49 place

According to WIPO, Ukraine is among the most innovative countries in the Global Innovation index 2021

11 place

According to the IT Competitiveness Index by Emerging Europe, Ukraine ranks high in the ranking of IT capabilities among developing countries in Europe

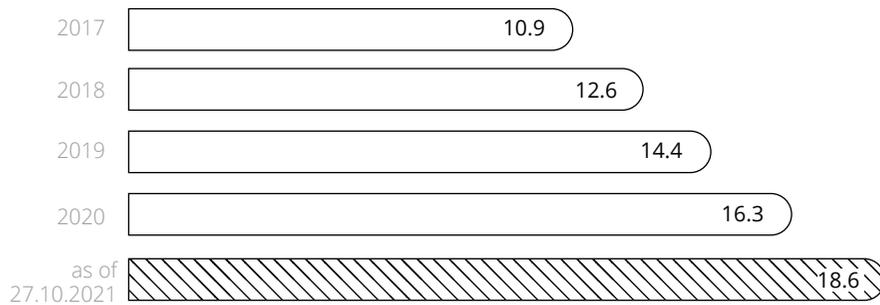
Source: Emerging Europe

*2019 data **ICT - information and communication technologies. IT + telecom

Number of IT Companies

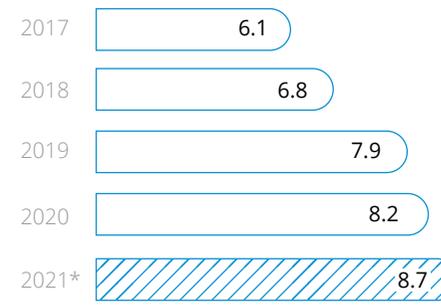
The IT market is growing rapidly. Official data and expert calculations differ significantly in their estimates. The Unified State Register of Enterprises and Organizations accounts for 18.6 thousand legal entities by the end of 2021.

Number of registered IT* legal entities in Ukraine, thousand legal entities



However, the register does not account for real activity: the State Statistics Service gives an estimate of 8.2 thousand entities. Of course, companies are often made up of several entities, so there are even fewer.

Number of active IT* legal entities in Ukraine, thousand legal entities



According to official statistics, the share of active legal entities in 2020 was

50.2%

According to expert estimates

~5,000
IT companies
the labour market***

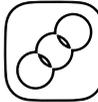
1,405
startups
at Dealroom.co



2,275
service companies
at Clutch.co



2,300+
companies
at Techecosystem.gov.ua***



360
Tech Ecosystem
Overview

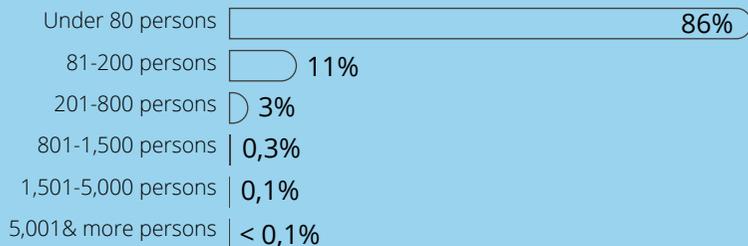
Types of Companies

The IT sector is quite diverse:

- Large number of small and medium-sized companies.
- Half of the companies are service companies, and every third has its own product and provides services.
- Global digitalization trends make it possible to cooperate with any industry.
- Technology is becoming more complex. There are companies in the market that are involved in Cloud, Big Data, and AI technologies.

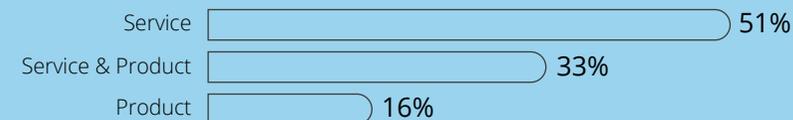
The largest number of IT companies in Ukraine have under 80 people

The proportion of companies by the number of specialists, %



Service-based companies dominate the market, but many of them create their own products

Share of companies by type, %



E-commerce, banking & fintech are main client industries*



DevOps, QA, UI/UX are the most common practices/technologies among IT companies*



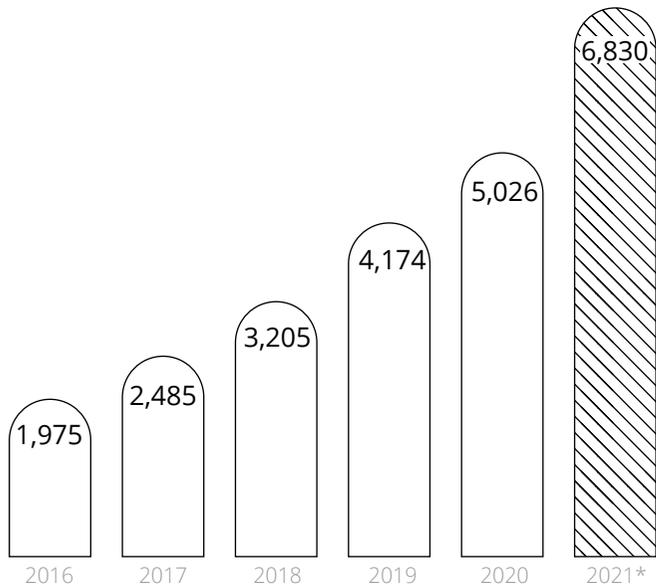
There are also companies that have competencies in Embedded, Robotics, Blockchain, Digital Assurance

Geography of Exports

Export of computer services from Ukraine increases on average by 27% annually. For 4 years the receipts have doubled, and this trend continues.

The main growth drivers are the USA (40% of exports) and Great Britain (10%).

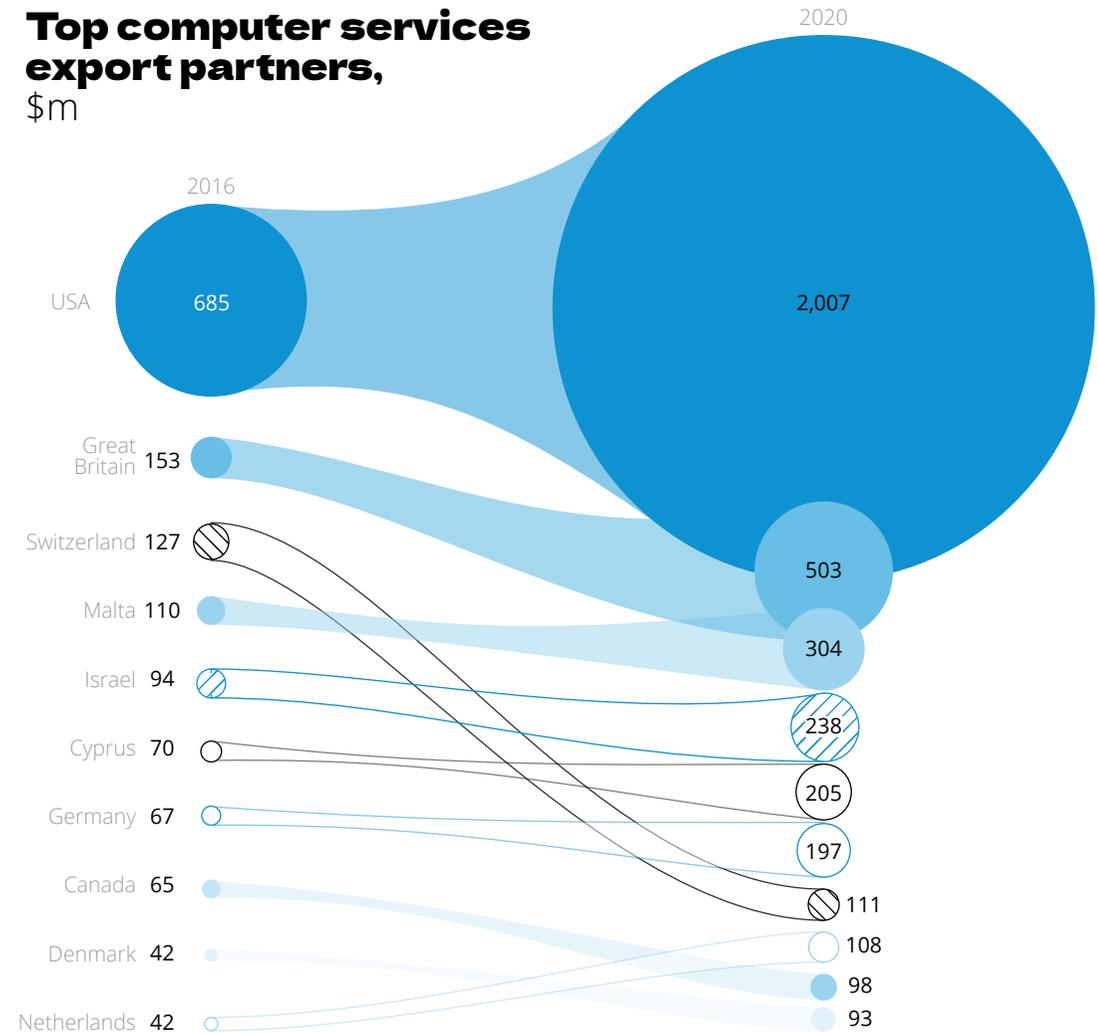
Export of computer services from Ukraine, \$m



Source: NBU

*estimate

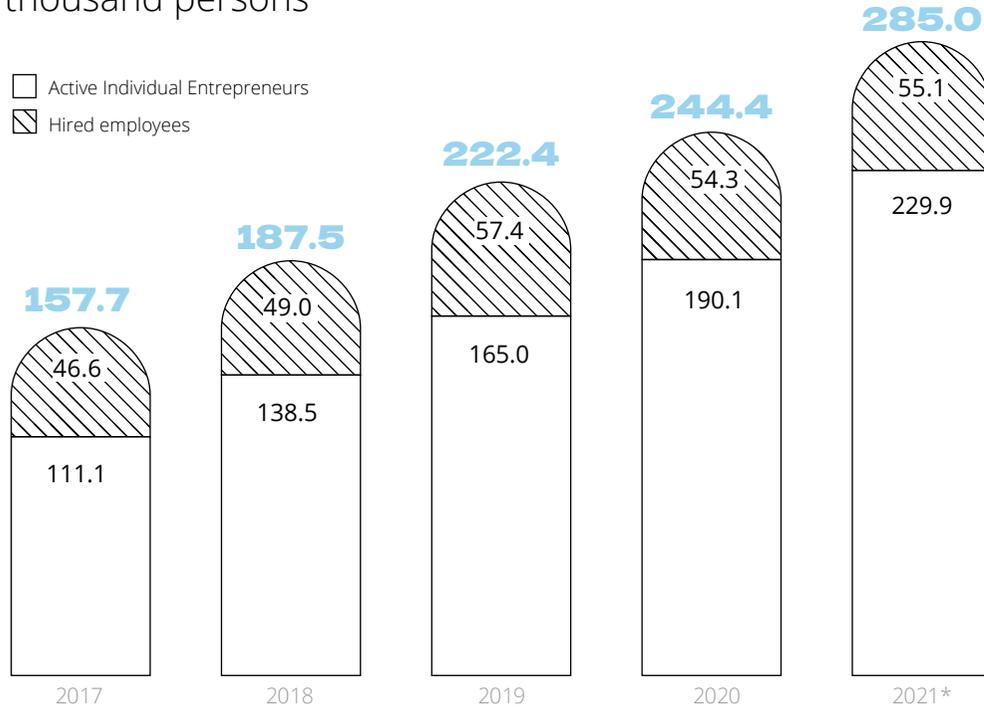
Top computer services export partners, \$m



Talents

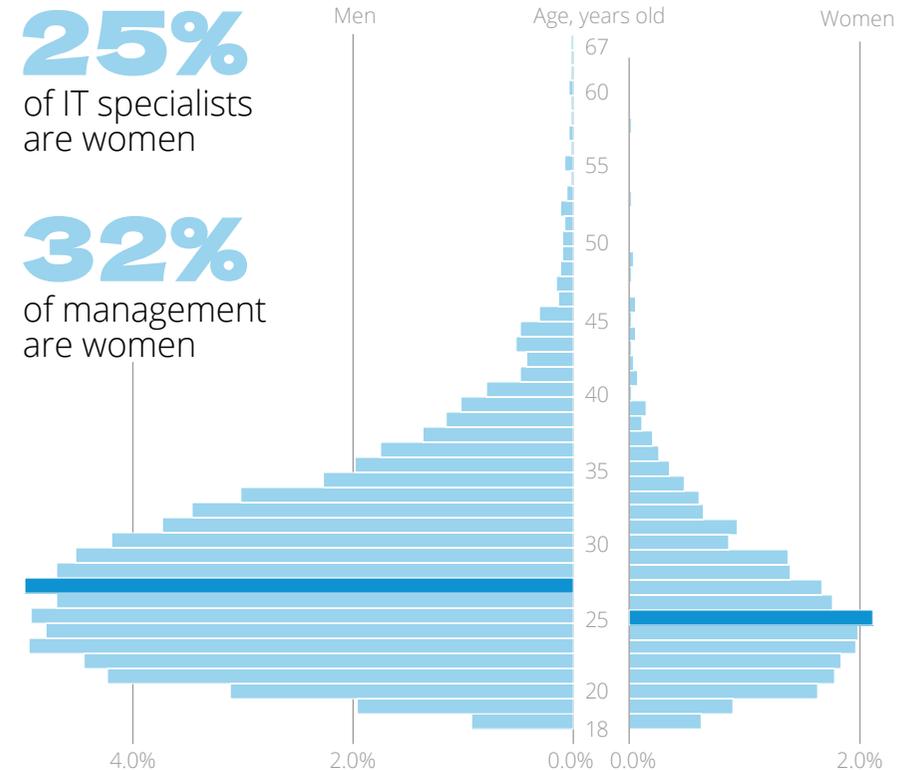
The demand for IT services along with relatively high salaries leads to a significant increase in the number of IT talents in Ukraine. Cooperation with Individual Entrepreneurs is attractive to companies because IT often involves project-based work. The IT industry actively attracts young people: 80% of IT companies' employees are between 18 and 32 years old.

Number of IT talents in Ukraine, thousand persons



Hired employees - according to the State Statistics Service.
Active Individual Entrepreneurs - those who declared income in the current year, data of the State Tax Service.

Gender and age pyramid of IT specialists in Ukraine in 2020, %



Talents

The significant demand for Ukrainian talents is due to the high educational level of Ukrainians. Ukraine ranks 47th out of 189 (between the UAE and Italy) according to the UN Education Index*. In general, the education index of Ukraine corresponds to the level of foreign countries. A typical Ukrainian IT worker has higher (often technical) education, at least an intermediate command of English, and 2 or more years of experience.

3 out of 4 people in IT are technical specialists

Profession

Technical	74%
Non-technical	26%

80% have an intermediate or higher command of English

English proficiency

Advanced and higher	13%
Upper-intermediate	34%
Intermediate	34%
Pre-intermediate	15%
Elementary and lower	4%

Most specialists have specialized higher education

Education

Higher (programming, exact sciences)	55%
Higher (other)	15%
Higher (economics, management)	13%
Incomplete higher	13%
Secondary and secondary special	4%

60% of specialists have 3+ years of experience

Experience

Under 1 year	14%
1-2 years	26%
3-5 years	30%
6-10 years	17%
Over 10 years	13%

Salaries

Remuneration research is conducted based on Korn Ferry's data

Korn Ferry's 2021 IT market remuneration study demonstrates:

- The labor market in Ukraine is quite fragmented, as evidenced by differences in remuneration within a single position.
- Project managers' earnings differ little by region. Salaries of other specialists in the capital are expected to be higher than the national average.
- Regions with below-average remuneration levels are economically more attractive for companies to enter.

87%

of companies revised their salaries last year and plan to do so annually

8.5%

typical percentage of growth in the remuneration budget

April and October

are the months when remuneration is revised most often

The project nature of IT work leads to the involvement of Individual Entrepreneurs by IT companies:

5%

of companies consist only of full-time employees

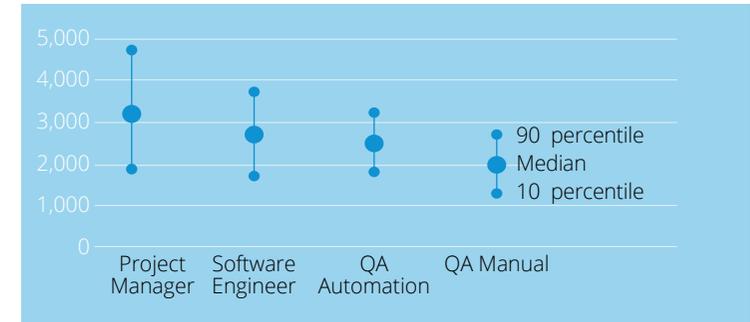
9%

of companies use different forms of cooperation, including Individual Entrepreneurs

86%

of companies mostly cooperate with Individual Entrepreneurs

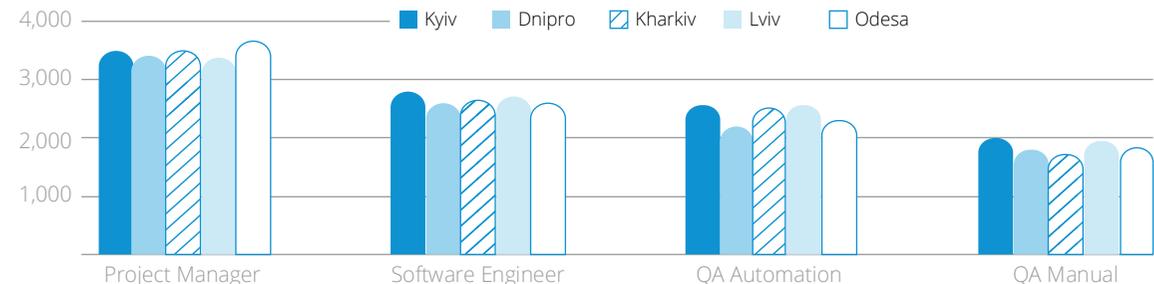
Remuneration estimates for a position of the same level may differ by twice or more



Remuneration by IT position*, \$/month

Salaries of IT specialists in Kyiv are slightly higher than the average in Ukraine

Remuneration by IT positions* and geography, \$/month



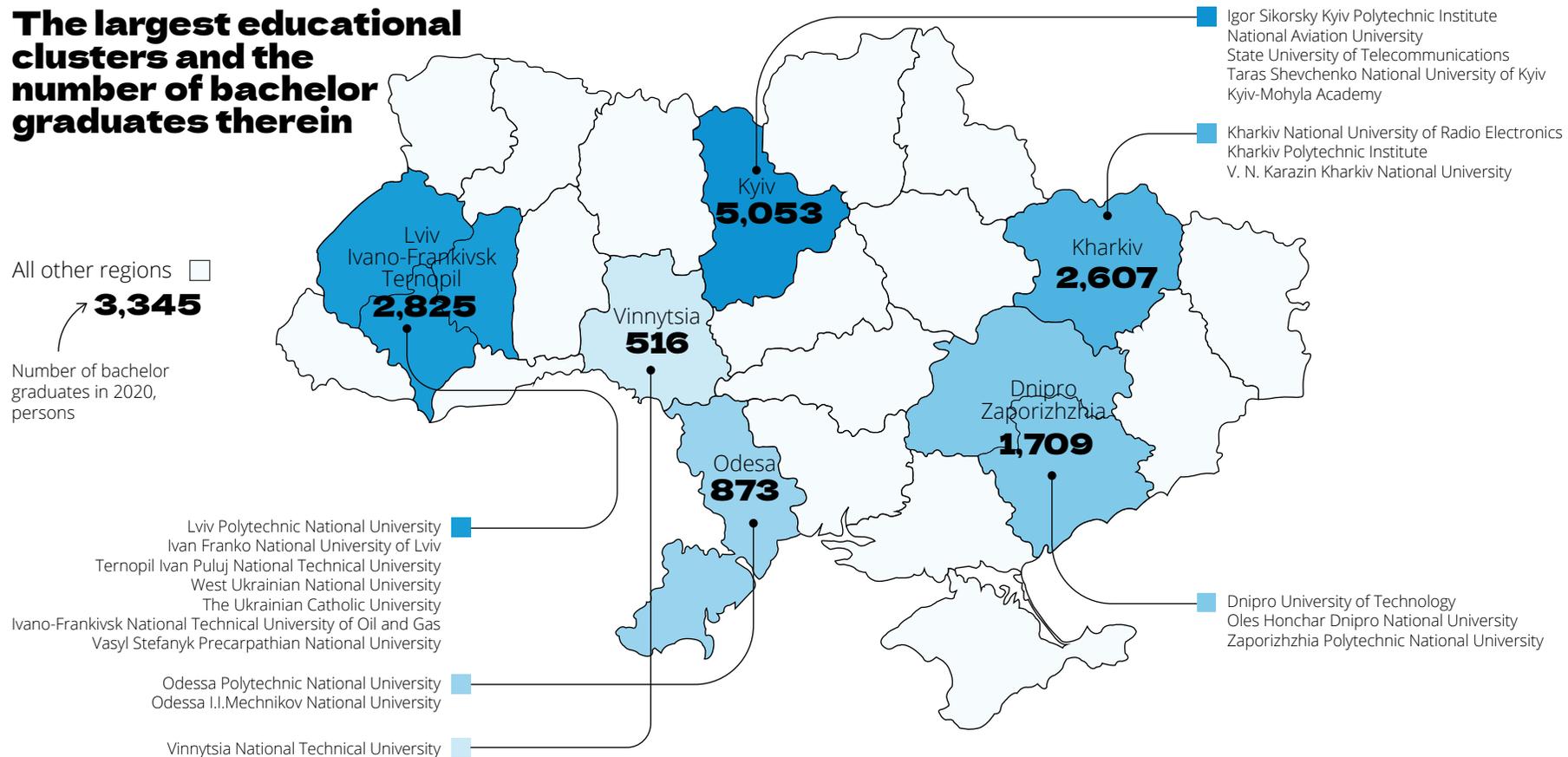
Sources: research by Korn Ferry 2021, IT Ukraine

*data for middle-level positions

Higher Education

Ukraine has a strong scientific base and an extensive network of publicly funded technical universities. Of the 1,700 educational institutions in Ukraine, 150 offer IT bachelor's degree programs. The most powerful education centers form clusters of companies in their regions.

The largest educational clusters and the number of bachelor graduates therein



Source: Ministry of Education and Science

Graduates

Ukrainian universities prepare around 16-17 thousand new **bachelors** every year. The increased interest of applicants for the specialty and state financing of training will make the number of graduates soar to 23 thousand in 2025. In the medium term, up to 35,000 bachelors are expected to graduate due to the peak birth rate in 2008-2013.

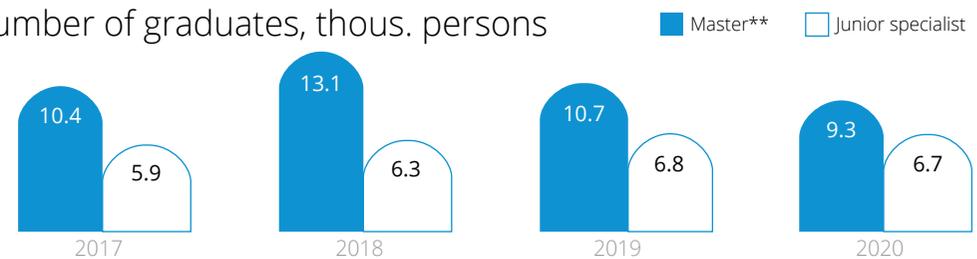
At least 80,000 IT professionals will receive a bachelor's degree between 2022 and 2025



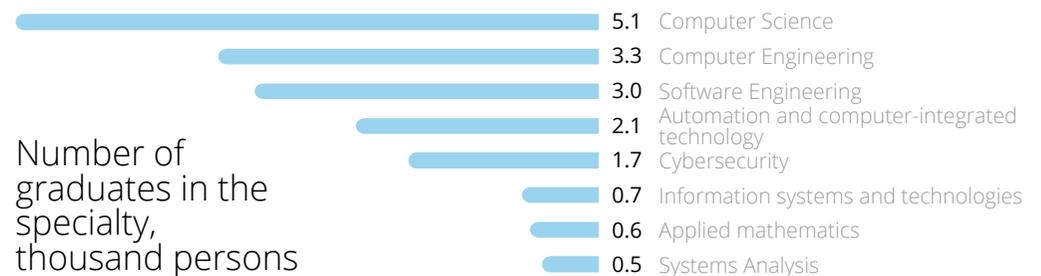
Fewer bachelor's graduates (54% in 2020) choose to proceed to **a master's program**. Colleges and technical high schools are graduating **junior specialists**. Most graduates do not consider this degree to be of value on its own and go on to complete a bachelor's degree. Modernizing the curriculum of technical schools and colleges is a potential growth point for the industry.

The popularity of the Master's degree is falling

Number of graduates, thous. persons



Engineering and computer science are the most popular majors in 2021



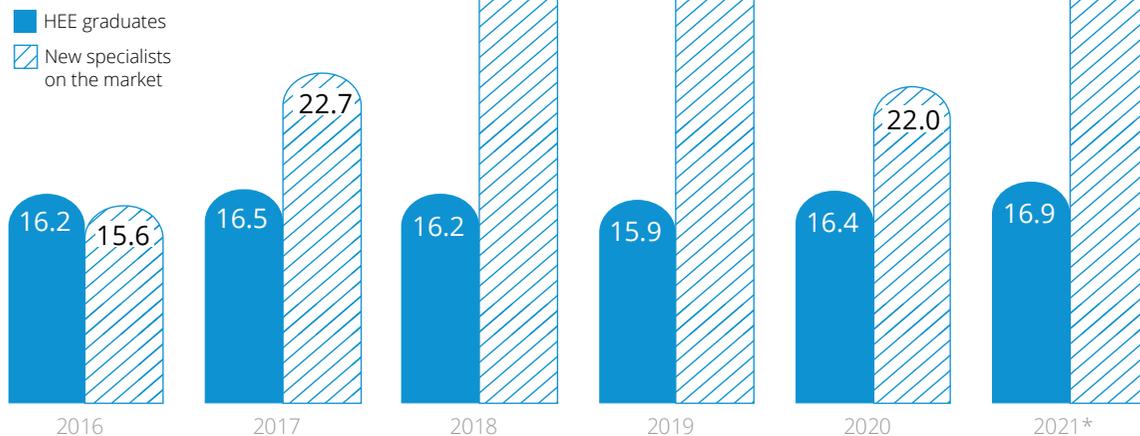
Source: Ministry of Education and Science *estimate based on enrollment numbers **through 2018 also included Specialists

Non-formal and Corporate Education

The IT business is an interested stakeholder in the education system of Ukraine. So far, the demand for new IT specialists has been significantly exceeding the capacity of Ukrainian higher education institutions (HEI). A response to this has been the emergence of numerous institutions of non-formal IT education, offering intensive training courses for new Junior-level specialists. Non-formal education prepares 10-12 thousand new IT specialists yearly. According to the Association, their number will grow to 20-25 thousand in the coming years.

The rapid growth of the IT industry creates significant opportunities for professional retraining

Number of new specialists and graduates of HEI, thousand persons



Key players



Sources: Ministry of Education and Science, IT Ukraine survey

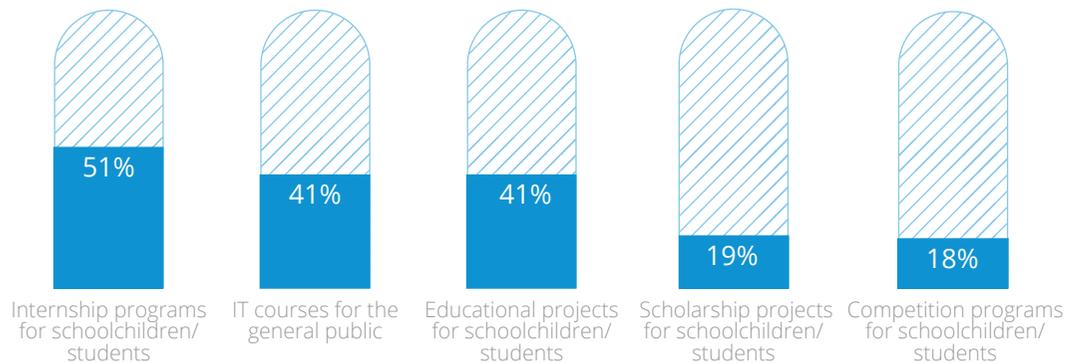
*estimate

Non-formal and Corporate Education

Due to the shortage of qualified employees, some companies have created their own talent training programs, which allow people from other industries, to obtain IT education and employment opportunities. Among the companies that have chosen this path are EPAM, SoftServe, Luxoft, ELEKS, and Beetroot. IT companies also create educational programs in cooperation with educational institutions.

8 out of 10 companies fund educational projects

Percentage of companies that fund certain educational projects and programs



IT companies create a life-long learning culture



Source: IT Ukraine survey

Employment of switchers is becoming the norm for the Ukrainian IT market

82% of companies are already hiring or plan to hire switchers – people who came into the IT industry from other professions. Among these:

- 50%** are ready to interview a candidate with experience in a related field;
- 46%** are ready to interview a candidate who has completed courses at the IT company;
- 33%** are ready to interview a candidate who has taken online courses.

The main challenges in the field of non-formal education:

- Competition for teachers with IT companies that can offer better compensation.
- Insufficient communication with IT companies on education standards and requirements for new professionals.
- Significant difference in the quality of training providers.

Events and Conferences

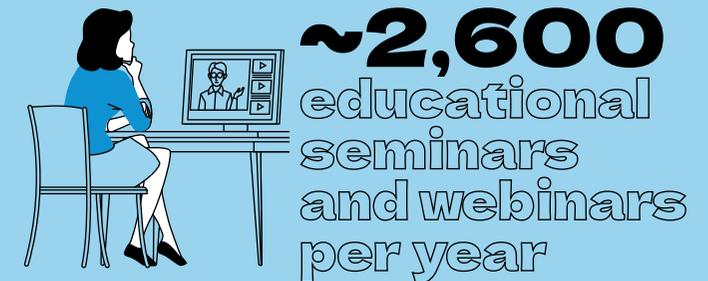
The IT industry is constantly changing and rapidly evolving. Working on the IT market requires businesses and professionals to exchange information quickly and steadily. In addition, the diversity of the IT industry in Ukraine creates a strong demand for events that allow a free exchange of experience and ideas. Hundreds of conferences and meetups annually meet the needs of the IT industry in business communication and professional growth, and thousands of online and offline seminars and lectures ensure the relevance of knowledge and skills of specialists of all levels.



The most popular topics: IT business, management, marketing



The most popular are: QA, HR, Java, Data science



The most popular topics: Programming technologies, QA, HR, management and business

iForum 2021

iForum is an annual conference dedicated to Internet business, technology, and startups. The event has been held in Kyiv since 2009 and is annually attended by tens of thousands of people.

fwdays

fwdays is a series of conferences on technical and business topics, held on average once a month and attracting hundreds of participants since 2010.

IT Ukraine Association

Synergy. IT Business & IT Education
The biggest specialized conference in Ukraine that drives IT Education development. Since 2014, IT Ukraine Association has been gathering representatives of government, business and educational institutions on a single platform to boost IT Education.



Kyiv Outsourcing Forum is a forum that annually gathers the owners and management of the Ukrainian service industry.



Lviv IT Arena is an annual event in Lviv that brings together developers, managers and business owners to share experiences and discuss new trends.

Associations



IT Ukraine is a professional association including more than 100 companies. In partnership with the government, clusters and international partners, it safeguards the interests of IT businesses, promotes Ukraine as a hi-tech country, and implements educational and social projects.



American Chamber of Commerce (ACC) engages more than 630 foreign companies and investors. The ACC IT Committee focuses on ensuring sustainable and transparent conditions for IT businesses in Ukraine, advocating amendments to legislation regarding the use of cloud computing, and development of the IT ecosystem.



European Business Association is a union of more than 980 companies, established with the support of the European Commission. The mission of the EBA IT Committee is to promote the development of the IT sector in Ukraine in accordance with the European practices of doing business and to safeguard the professional and collective interests of the IT community.



Union of Ukrainian Entrepreneurs (SUP) is an association of Ukrainian entrepreneurs that aims to create and foster a favorable business climate in Ukraine. The SUP operates a committee on information and communications technology and E-Commerce. Its key priorities include protection of business interests, promotion of digitalization and cybersecurity in business, and improvement of the regulatory framework.

Source: open data

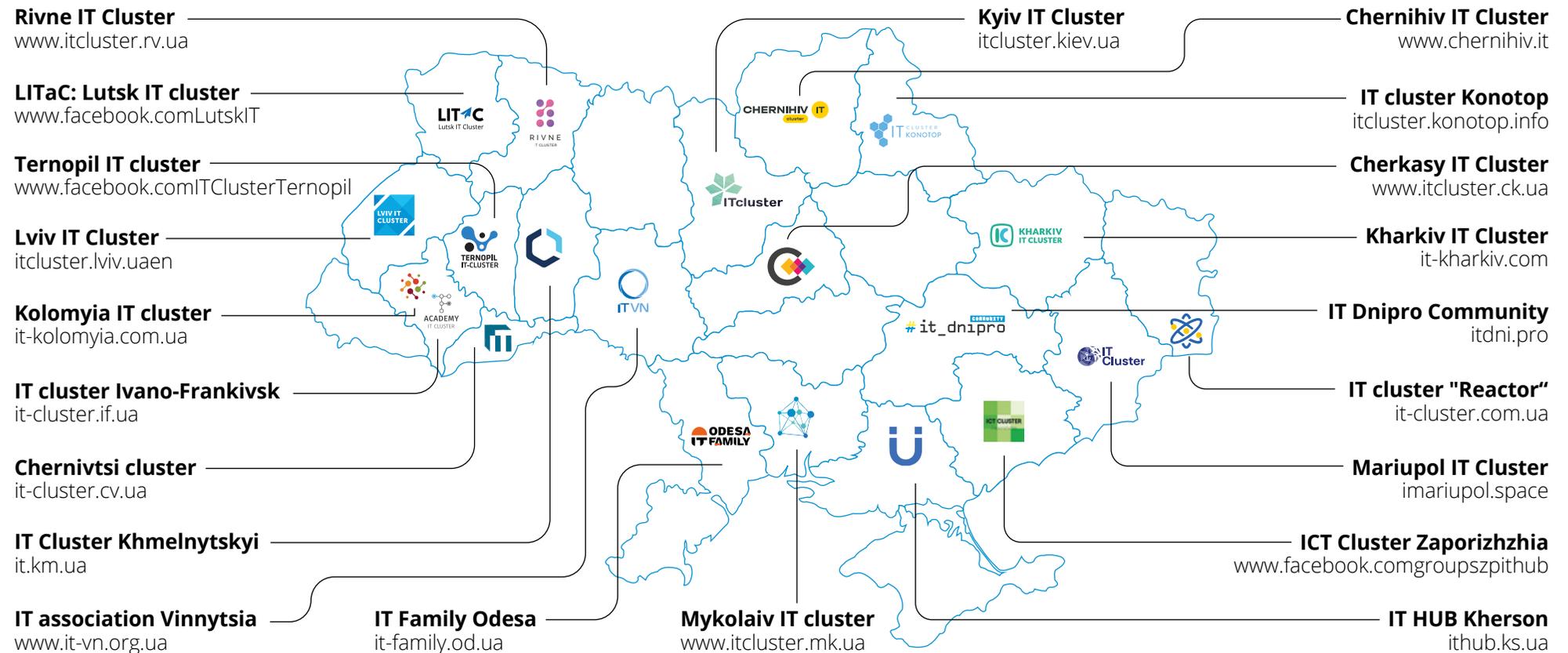


Ukrainian Venture Capital & Private Equity Association brings together more than 50 participants of international and Ukrainian investment markets. UVCA was created to spread a word about investment opportunities in Ukraine and provide multi-vector investor support.

Clusters

Local IT companies, educational institutions, legal and financial advisors often come together to create horizontal communities referred to as IT clusters. The main areas of focus for IT clusters are:

- education and efforts to make IT occupations more popular
- analytical research of the industry
- holding events and conferences on relevant topics
- support for new businesses, startup competitions, etc.



Source: open data

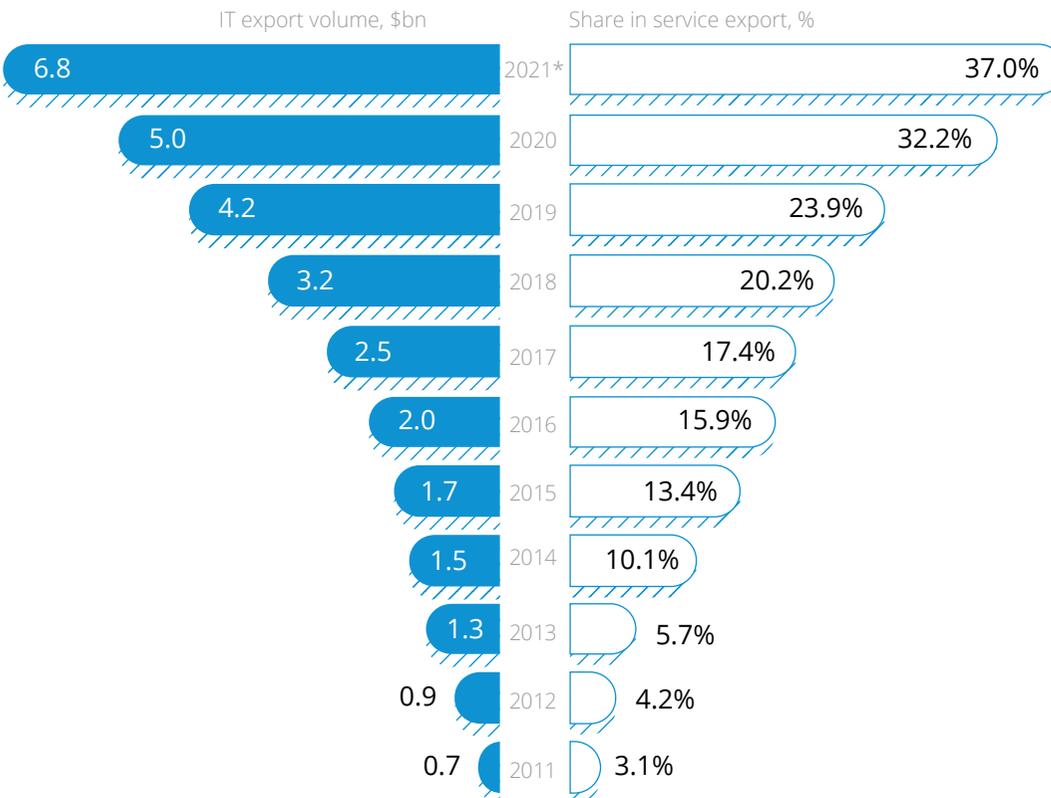
IT in Ukraine's Economy. Regulatory field



IT in Ukraine's Economy. Export

The Ukrainian IT sector is mainly export-oriented and is steadily and rapidly growing.

The IT export volume has doubled over three years



Source: NBU

*forecast

In 2020, the IT sector generated:



Twice as much export revenue as the gas transmission system.

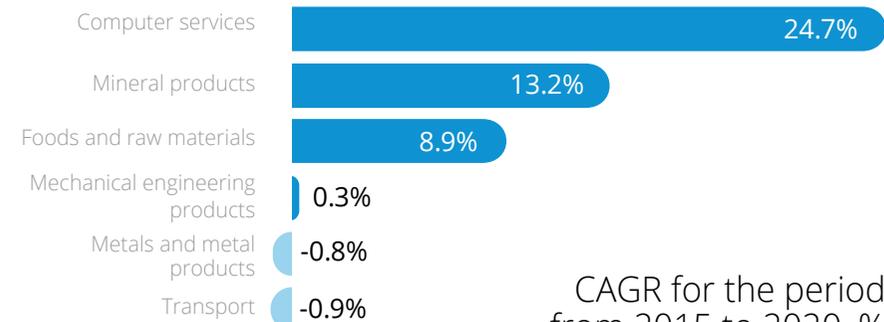


1.5 times more export revenue than the mechanical engineering industry.



About a quarter of the export revenue of the agricultural sector.

Exports of IT services are growing faster than the exports of any other goods or services

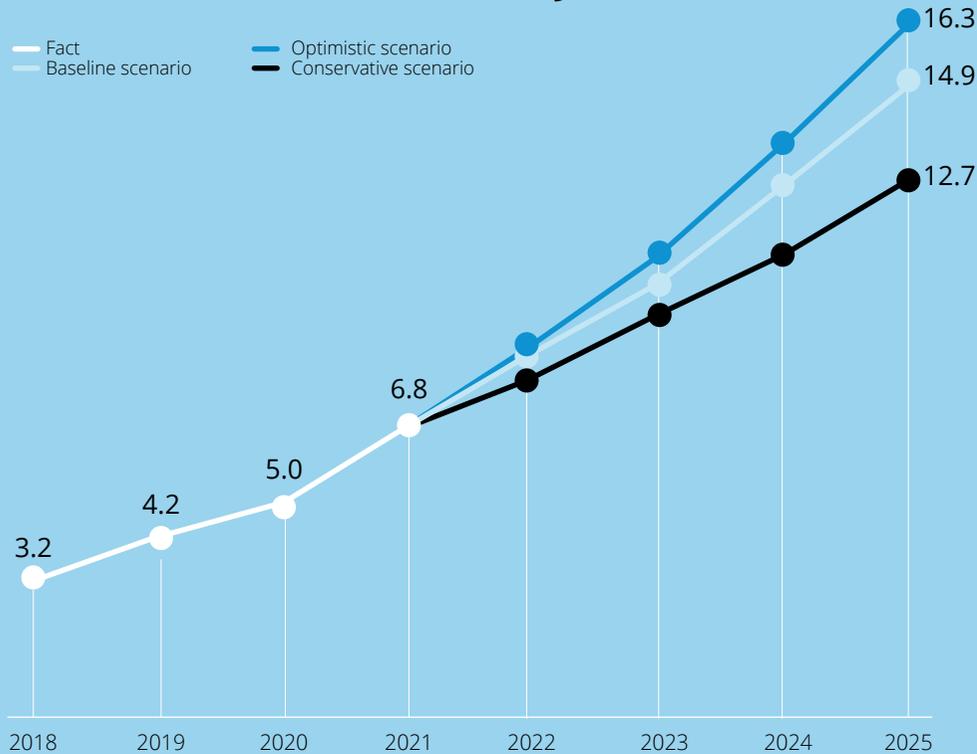


CAGR for the period from 2015 to 2020, %

IT in Ukraine's Economy. Forecast

In the baseline scenario, Ukraine's IT sector could double its export revenues in four years.

IT will provide \$37m - \$44m in export revenues over the next 4 years



Sources: NBU, State Statistics Service, State Tax Service, Ministry of Education, authors' estimates

Optimistic scenario:

increase in the number of people employed in the sector based on the previous trends (average growth of 13.3%).

CAGR of export revenues for the period from 2021 to 2025, %

24.3%

Baseline scenario:

increase in the number of people employed in the sector based on formal and non-formal education forecasts (average growth of 10.8%).

21.6%

Conservative scenario:

increase in the number of people employed in the sector based on formal education forecasts (average growth of 6.6%).

16.7%

All scenarios assume a 9.75% increase in average export revenues per employee.

IT in Ukraine's Economy. Taxes

The study was conducted in partnership with Sayenko Kharenko

Thanks to the IT industry development, the fiscal revenues of Ukraine's economy generated by this sector are steadily increasing. Thus, over the past 6 years they have more than tripled. In 2020, UAH 17.2 billion-worth of taxes and fees was paid, which could be enough, for example, to:



Fund the entire program of utility bill payment assistance for households for 10 months of 2020.



Provide monthly pension benefits to 4.9 million retirees.



Finance 90% of all medical services related to Covid-19 in 2020.



Resurface 682 km of roads.



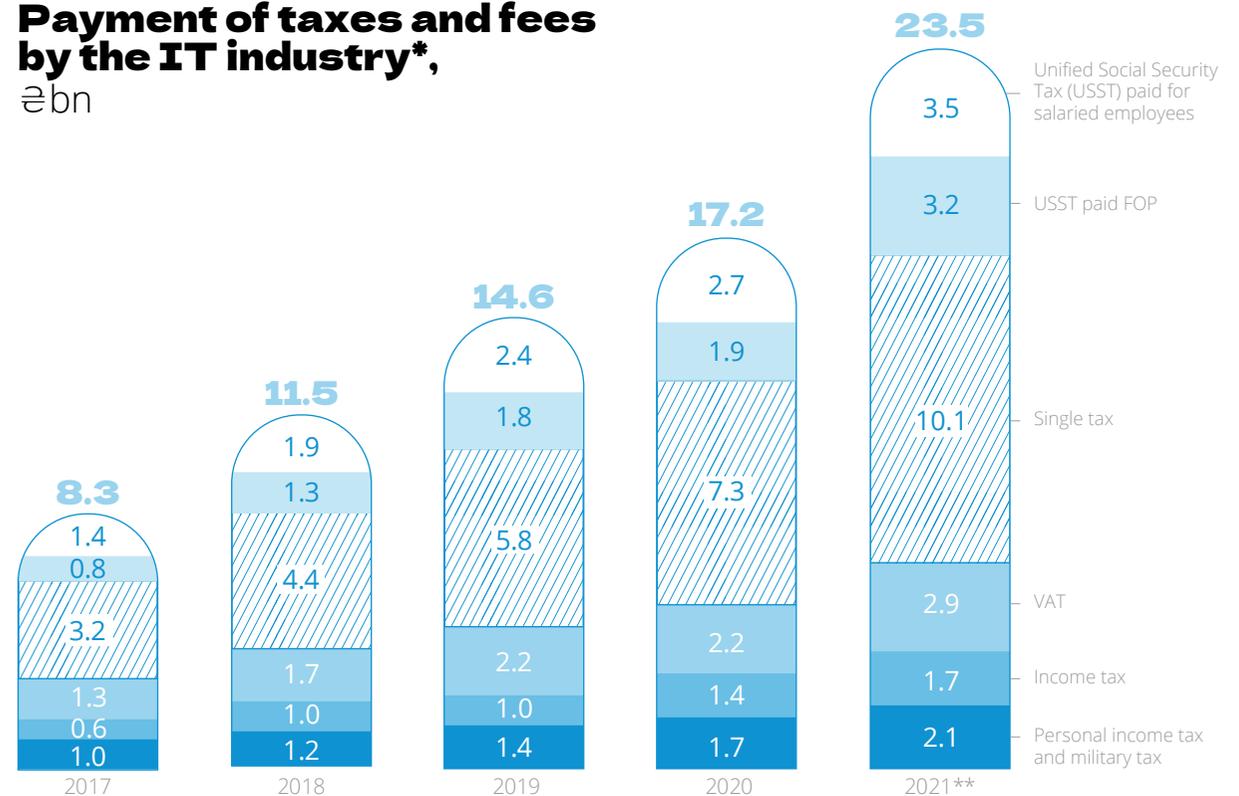
Fund all anti-corruption bodies of Ukraine (NABU, DBR, NAPC, HACC, ARMA) and the Prosecutor General's Office.



Provide 95% of funding for the entire judicial system of Ukraine.

Sources: State Tax Service, openbudget.gov.ua, CoST Ukraine, PFU

Payment of taxes and fees by the IT industry*, €bn



*taxpayers operating in the field of IT

**forecast

Tax System

The study was conducted
in partnership with
Sayenko Kharenko

Historically, Ukraine's tax system provides comfortable conditions for IT business, which has ensured the steady development of this sector year after year. Furthermore, additional tax incentives are expected in 2022 (Diia City).

Taxes involved in attracting IT specialists

Single-tax model is typical for the IT industry (engagement professionals as independent contractors – individual entrepreneurs (FOP))



5% of income

of the IT professional or 3% if the IT is registered as a VAT payer or a VAT payer.



Minimum amount

of the unified social contribution (USC)*. In 2022, it will be from UAH 1,430 to UAH 1,474.

Within the classic employment model:



18% personal income tax.



1.5% military tax.



22%

The tax base for USC is capped to 15 minimum wages per month. For instance, the maximum USC amount in 2022 will be from UAH 21,450 to UAH 22,110 per month.

Corporate tax

18% corporate income tax (based on the accounting data about accounting profits subject to a limited number of tax adjustments).

20% VAT. However, at the same time:

- VAT-free export of IT services.
- VAT-exempt payment of royalties in cash.
- VAT-exempt software supply transactions (until 1 January 2023).

Diia City

The study was conducted
in partnership with
Sayenko Kharenko

It is expected that from 2022 the government will introduce a special legal framework for the IT industry – i.e. **Diia City**. It will extend to the entire territory of Ukraine and is supposed to provide a number of incentives to IT companies (Diia City residents): special tax regime, special (more flexible) forms of engaging IT specialists (gig and employment contracts), additional legal tools in the field of investment protection and corporate governance. Considering the long-standing dialog between the IT-industry and the authorities it is expected that the implementation of the Diia City will be considered as an additional incentive of the growth of digital economy in Ukraine.

Types of IT activities



Software development and support, including games.



Provision of cloud services and online services (such as SaaS).



R&D in IT and Telecom.



Teaching computer literacy, programming, testing and software technical support.



Marketing for the software developed in the framework of Diia City.



Cybersport, activities related to the virtual assets flow, cybersecurity, development and implementation of robotics.

Special tax regime

1. Corporate taxation

Taxpayers are granted with the right to choose:

9% of so called **distributed profit tax** business profits are taxed only when withdrawn from business (when paying dividends and making other similar payments). This makes it possible to apply 0% rate of personal income tax to dividends that has not been distributed for two years or more;

or **18% of corporate income tax** (usual income tax system).

2. Personal taxation for IT professionals

5% income tax for IT professionals, including those employed under the classic model*.

Minimum USC**.

1.5% military tax.

Requirements for Diia City residents

90% of income from the set types of IT activities.

EUR 1,200 – average monthly remuneration of IT professionals.

9 people – average monthly number of IT specialists either employed or engaged as gig-specialists.

Absence of the so-called “negative” criteria: affiliation with a company from non-eligible jurisdiction (e.g. an aggressor country, tax arrears), non-compliance with the law on disclosure of the beneficial owner, non-profit status, being subject to sanctions, bankruptcy, etc.

Simplified requirements for new (up to two years) small businesses (with an income equivalent to €246K in 2022).

The control over compliance with the relevant requirements are performed by the authorized body – **Ministry of Digital Transformation of Ukraine**. Diia City residency is voluntary and based on the application procedure. Legislation has laid down detailed procedures for taking decisions concerning the obtaining / refusal of the resident status, as well as procedures for appealing against the refusal.

Diia City

The study was conducted
in partnership with
Sayenko Kharenko

The framework provides an opportunity to choose the form of cooperation with IT professionals.



1) Gig contract as a new form of attracting IT specialists

(an alternative to contracts with individual entrepreneurs (FOPs) and employment)

- Combines the benefits of employment relations and relations with independent contractors.
- Not subject to outdated labor legislation.
- Provides for a flexible system of payments and compensation.
- Customer acquires intellectual property rights to created deliverables by operation of law.



2) Employment contract

(as more flexible form of employment relations)

- Employer acquires intellectual property rights to computer programs and databases by operation of law.
- Allows the employer to include author's remuneration in the employee's wage subject to compliance with minimum requirements.
- Ensures stability in regulation of relations – concluded employment contracts remain valid if the Diia City resident status is withdrawn.

Diia City residents can conclude indemnity-payable and fixed-term non-compete agreements. Additional regulation for non-disclosure arrangements.

Source: Sayenko Kharenko

The framework involves employment incentives.



Incentives for foreign specialists

- Facilitated conditions for obtaining work permits for foreign IT professionals (no minimum wage requirements and permit validity of up to three years, compared to the standard period of up to one year).
- Quotas for IT professionals' immigration permits (permanent residence).



Incentives provided within Diia City

- The opportunity to obtain employment permits for employees and gig-specialists on preferential terms.
- The obtaining of such permits is voluntary (as opposed to employment relations), at the discretion of the Diia City resident.



Simple procedure for obtaining a work permit

- Submission of a standard package of documents (application from Diia City resident, photo and copy of employee's / gig-specialist's ID document draft employment contract or gig contract).
- The permit is issued within seven working days.
- The permit can be extended an indefinite number of times as long as grounds for validity extension are in place.

Diia City

The study was conducted
in partnership with
Sayenko Kharenko

Diia City introduces or improves a number of legal tools that are widely used by the international business community in investment transactions and corporate governance to protect investment:

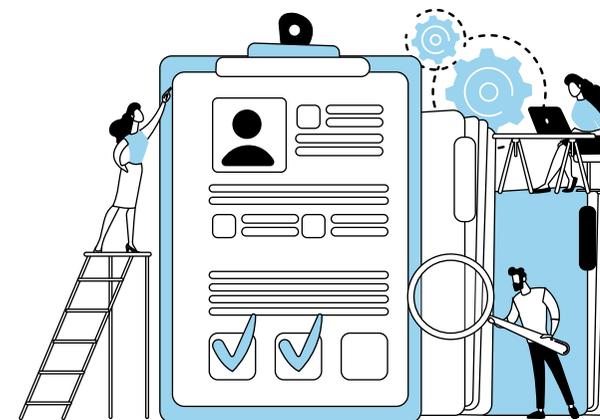
New tools for contractual protection of the investment

- Contractual representations (similar to **representations and warranties** under English law or the law of any of the US states), whereby parties to the contract assert that the statements concerning facts relevant to the contract are true and accurate.
- In case of breach of contractual representations, non-breaching party may compensation from the breaching party without proving damages (similar to **liquidated damages**).
- Contractual obligation to compensate for the loss incurred by a party to the contract or a third party in connection with pre-defined events or circumstances (similar to **indemnity** under English law).
- Special type of the loan, which may be converted into equity (similar to **convertible loan**).



Improvements in corporate governance

- **Shareholders' agreements** in respect of the Diia City resident are allowed to be governed foreign law, if one of the shareholders is a foreign investor.
- **Corporate directors** allowed: Diia City residents will be able to delegate company management to another company under a separate agreement.
- Preferential right to get distribution during the company liquidation (**liquidation preference**): the charter or resolution on incorporation of the Diia City resident may stipulate the order of payout in favor of certain shareholders of the Diia City resident in case of a corporate liquidation.



Investments

The Ukrainian IT industry has been actively attracting investment for its development. Every year, on average, deals are concluded on the total amount of 300-700 million dollars. Most of the deals involve investments and grants for startups getting their operations off the ground (Seed and Pre-seed), but most of the funding is ploughed into several largest companies.

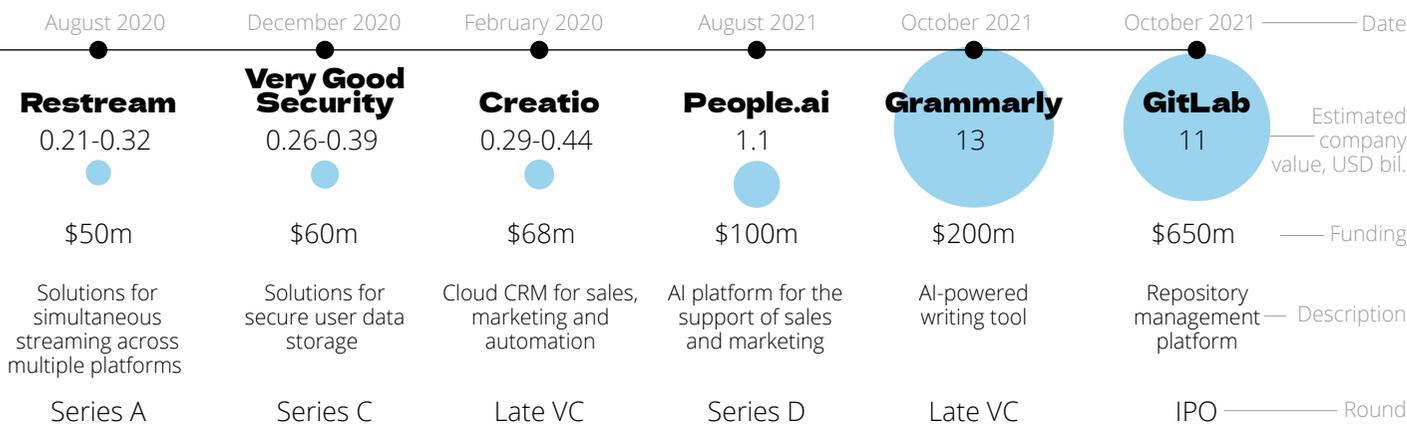
Number of venture agreements



Amount financed under venture agreements, \$m



The largest financing agreements concluded by Ukrainian* startups in 2020-2021



Notable M&A agreements in 2020-2021



Sources: UVCA, AVentures, ain.ua

*all the above companies are registered outside the Ukrainian jurisdiction but have Ukrainians among co-founders and their development centers are located in Ukraine (except GitLab)

Office Property Market

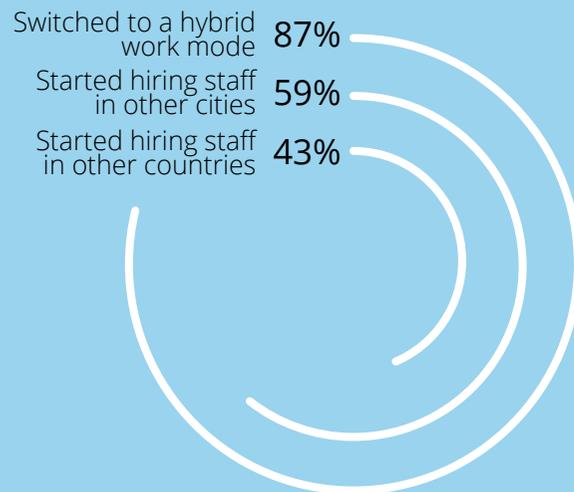


COVID-19 and Remote Work

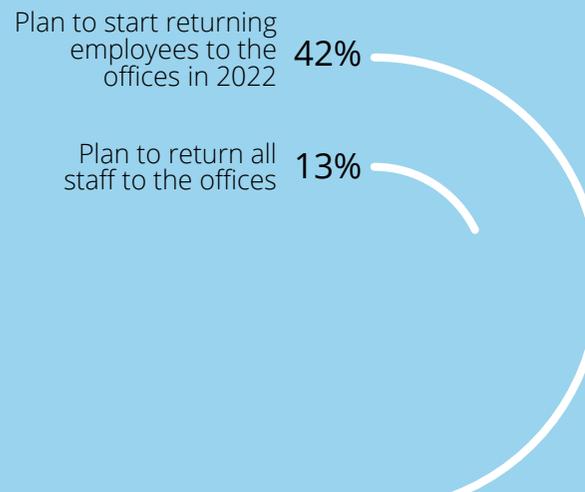
For IT, remote work is rather a common thing: IT projects, in particular, outsourcing ones, foresee remote cooperation with clients. The COVID-19 pandemic additionally forces people to work out-of-office. In return, this provides additional opportunities for the IT business:

- allows considering candidates from other regions and even countries
- makes it possible to reduce the costs for offices

As a result of the pandemic, companies have somewhat changed their operating practices:



Should the quarantine restrictions be lifted, the companies:



Three-quarters of companies rent office facilities

The COVID-19 pandemic has forced certain companies to abandon office premises

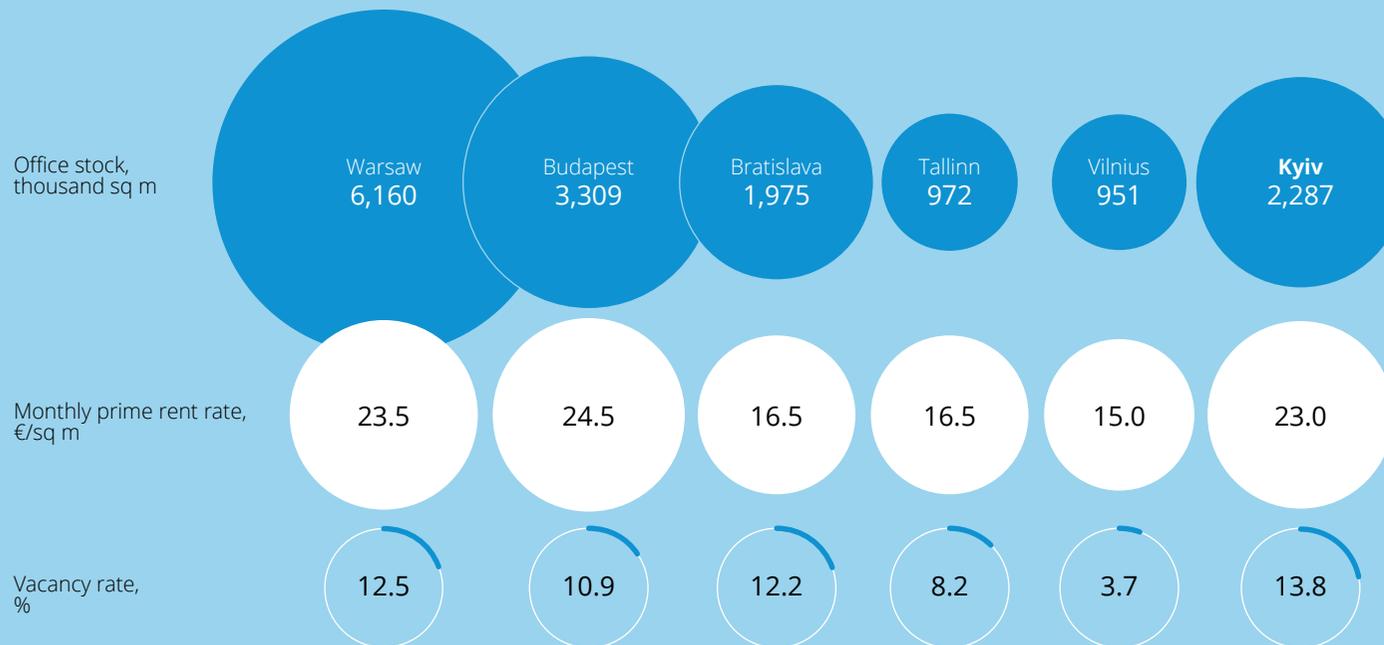


General Overview

The study was conducted
in partnership with
Cushman & Wakefield

Though the office property market in Ukraine remains less developed compared to other CEE markets, it has been actively growing in 5 major cities, particularly in Kyiv and Lviv, and to a lesser extent in Kharkiv, Dnipro and Odesa. Cumulative official population of these 5 major cities exceeds 7 million inhabitants, and they are on radar screens of a majority of IT companies operating in Ukraine or considering entry to the country.

Key office property market indicators in Kyiv versus other CEE capitals*



In terms of qualitative and quantitative parameters, **the office property market is most developed in the capital city of Kyiv**. In Kyiv total office stock is almost 2.3 million sq m GLA and primary vacancy – around 14% with an additional 260,000 sq m GLA of modern office space in development pipeline by the end of 2022.

Therefore, the city offers attractive opportunities for expansion of IT companies at prime rents which are largely comparable with other CEE capitals.

Sources: Cushman & Wakefield, State Statistics

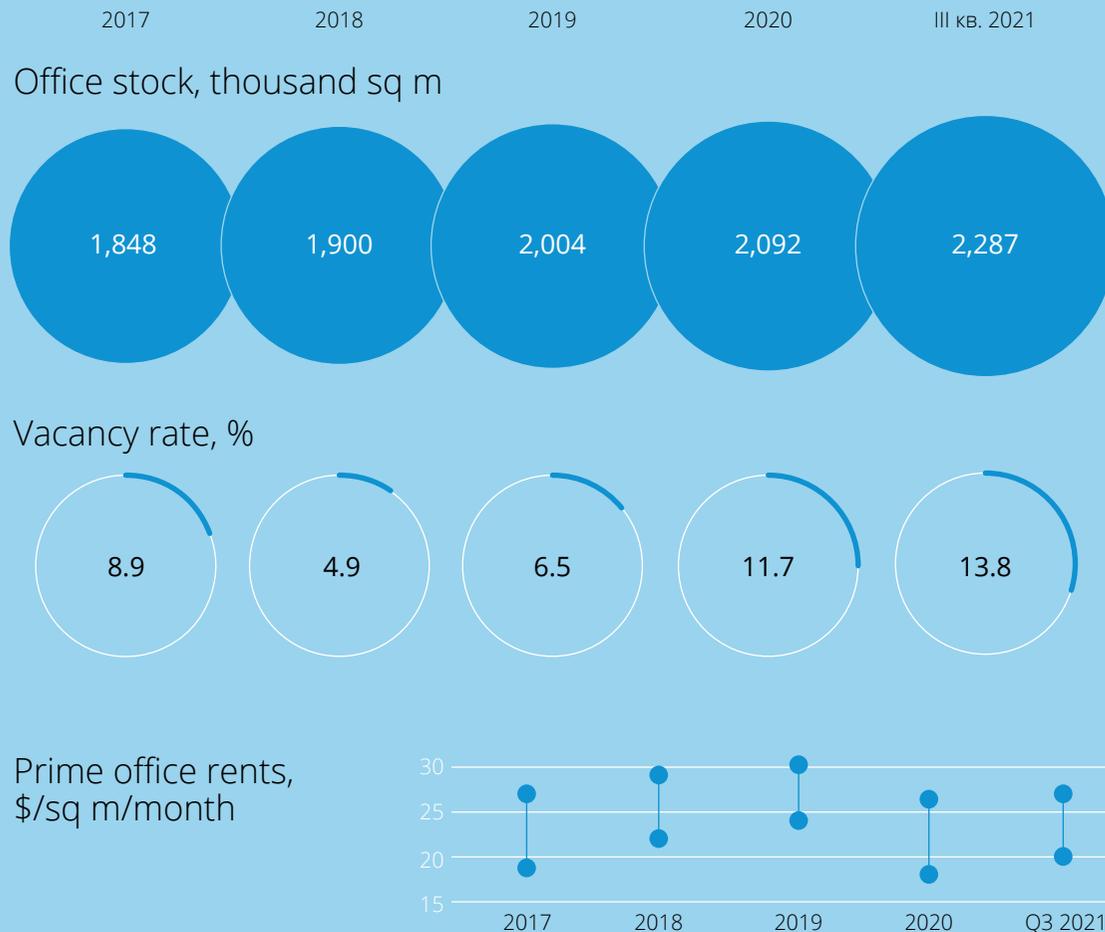
*Based on the information available as of Q3 2021

**Gross Leasable Area

Key Indicators in Kyiv

The study was conducted in partnership with Cushman & Wakefield

Key office property market indicators in Kyiv*



Sources: Cushman & Wakefield, State Statistics

*all figures are provided as of the end of the reporting period

Typical lease terms in the professional business centres in major cities of Ukraine

- Monthly rent, paid monthly in advance, net of service charge, utilities and taxes.
- Most rents in the professional business centres in Kyiv are pegged to the US dollar and paid in local currency at prevailing exchange rate on date of invoice. In the regional cities, however, office property markets are dominated by rents quoted and fixed in the Ukrainian hryvnya.
- Rent indexation is typically 3-5% annually from the second year of lease.
- Lease length usually extends to 3-5 years.
- Service charge (OPEX) paid by tenants as coverage of the costs and expenses related directly to the maintenance of the property. Though very common in Kyiv and Lviv, on some other regional markets service charge (OPEX) is often included into rent.
- In new properties office space is usually offered with a basic fit outor shell & core, in some cases with raised floors installed. Cost contribution for partial fit-out or turn-key condition is sometimes provided.
- Guarantee deposits in the amount of a 3-month rental payment are the preferred option.

Cities of Ukraine

The study was conducted in partnership with Cushman & Wakefield

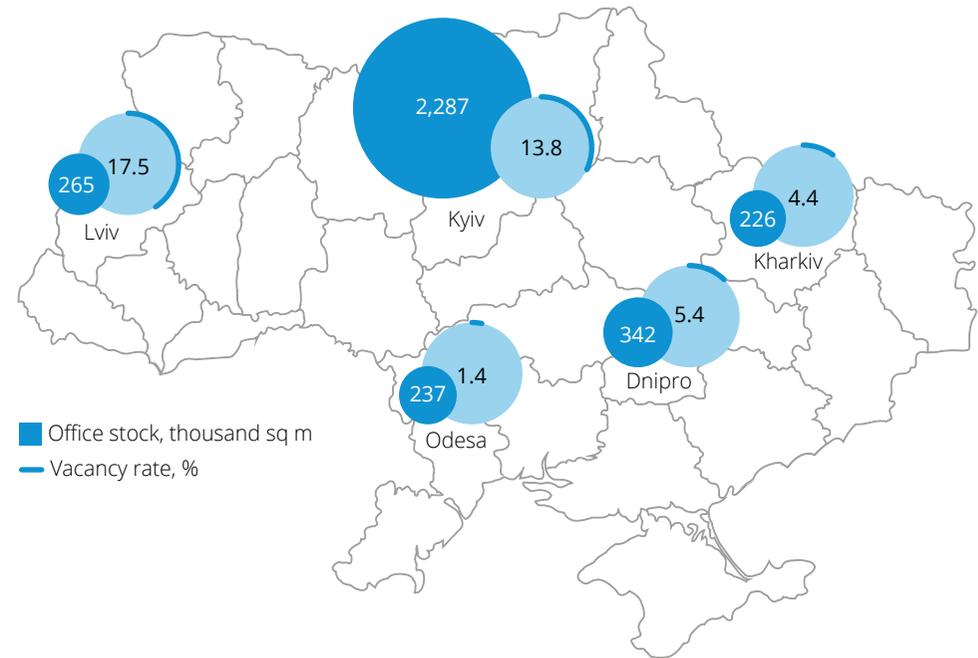
Since 2016, **Lviv** witnessed distinctively high development dynamics on the office property market in response to robust occupier demand and positive outlook driven by the vibrant IT sector, as well as stronger investment attractiveness of the city compared to eastern and southern parts of Ukraine. Despite the negative impact of COVID-19, during 2021 new office supply reached around 41,000 sq m GLA* with a further around 38,500 sq m scheduled for commissioning by end of 2022. Above all of the cities Lviv is noted of having a number of pipeline projects tailored for the creation of IT driven ecosystem.

Kharkiv is a very attractive destination for IT companies. Nevertheless, its office property market remains very immature with small total stock, low space availability and insignificant development pipeline during the next 12-16 months. At the same time, several larger-scale office developments have been planned in the city with their delivery timeline beyond 2022. Kharkiv is cost-competitive with average base asking rents from \$10 to \$15 per sq m per month.

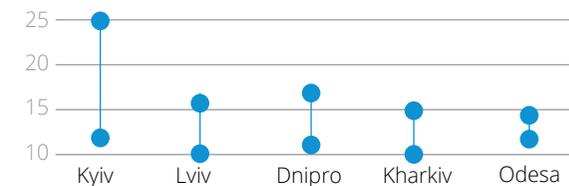
Dnipro has experienced sluggish development activity on the office property market for many years. In 2019-2020 several office properties were commissioned, mainly by way of completion of frozen development projects, which were commenced prior to 2008-2009. Despite COVID-19, during 2021 new office supply in the city amounted to around 22,000 sq m GLA with an additional 27,500 sq m of office space in pipeline by the end of 2022.

Odesa is another major city in Ukraine, which is a popular tourist and business destination benefiting from a coastal location on the Black Sea. Despite the nominal office vacancy registered for many years and estimated at around 1.4% in Q3 2021, in Odesa there are only a few relatively professional business centers, while development activity in the sector is fairly low with only around 6,000 sq m GLA in pipeline for the next 12-16 months and no significant development plans in the longer term.

Key office property market indicators in major cities of Ukraine**



Average asking rents***, \$/sq m/month



*Gross Leasable Area **Based on the information available as of Q3 2021

***rental rate is quoted as base rent excluding VAT, service charge and utility payment.

Profile of IT Regions



IT Regions Profile in 2021



99.2

Estimated number of IT specialists, thousand persons*

35%

% of total number



40.8

Estimated number of IT specialists, thousand persons*

14%

% of total number

9.4

Number of IT graduates, thousand persons



167

Number of higher education institutions with IT programs



4.7

Number of IT graduates, thousand persons



87

Number of higher education institutions with IT programs



2,800

Median income of a middle software engineer, \$



2,650

Median income of a middle software engineer, \$

9,146 Taxes**, €m



2,298 Taxes**, €m



Sources: Unified State Register, State Statistics Committee * based on the data of tax revenues and USR

** excluding tax receipts to the Office of Large Taxpayers Korn Ferry, IT Ukraine, Ministry of Education and Science, State Tax Service

IT Regions Profile in 2021

Lviv Region

Dnipropetrovsk Region



29.6

Estimated number of IT specialists, thousand persons*

10%

% of total number



24.4

Estimated number of IT specialists, thousand persons*

9%

% of total number

3.5

Number of IT graduates, thousand persons



67

Number of higher education institutions with IT programs



2.4

Number of IT graduates, thousand persons



72

Number of higher education institutions with IT programs



2,708

Median income of a middle software engineer, \$



2,592

Median income of a middle software engineer, \$

1,922

Taxes**, ₴m



1,628

Taxes**, ₴m



IT Regions Profile in 2021



13.8

Estimated number of IT specialists, thousand persons*

5%

% of total number

1.9

Number of IT graduates, thousand persons



48

Number of higher education institutions with IT programs



2,589

Median income of a middle software engineer, \$

826

Taxes**, €m



8.2

Estimated number of IT specialists, thousand persons*

3%

% of total number

485

Taxes**, €m

1.1

Number of IT graduates, thousand persons

53

Number of higher education institutions with IT programs

2,357

Median income of a middle software engineer, \$



7.3

Estimated number of IT specialists, thousand persons*

3%

% of total number

510

Taxes**, €m

1.0

Number of IT graduates, thousand persons

23

Number of higher education institutions with IT programs

2,361

Median income of a middle software engineer, \$

** excluding tax receipts to the Office of Large Taxpayers Korn Ferry, IT Ukraine, Ministry of Education and Science, State Tax Service

IT Regions Profile in 2021



Mykolaiv Region

6.5

Estimated number of IT specialists, thousand persons*

2%

% of total number

366

Taxes**, €m

0.6

Number of IT graduates, thousand persons

32

Number of higher education institutions with IT programs

2,021

Median income of a middle software engineer, \$



Ivano-Frankivsk Region

4.2

Estimated number of IT specialists, thousand persons*

2%

% of total number

245

Taxes**, €m

0.7

Number of IT graduates, thousand persons

27

Number of higher education institutions with IT programs

2,257

Median income of a middle software engineer, \$



Cherkasy Region

5.7

Estimated number of IT specialists, thousand persons*

2%

% of total number

384

Taxes**, €m

0.6

Number of IT graduates, thousand persons

37

Number of higher education institutions with IT programs

2,921

Median income of a middle software engineer, \$



Zhytomyr Region

4.4

Estimated number of IT specialists, thousand persons*

2%

% of total number

287

Taxes**, €m

0.5

Number of IT graduates, thousand persons

12

Number of higher education institutions with IT programs

1,686

Median income of a middle software engineer, \$

IT Regions Profile in 2021



Poltava Region

4.8

Estimated number of IT specialists, thousand persons*

2%

% of total number

296

Taxes**,
€m

19

Number of higher education institutions with IT programs

0.5

Number of IT graduates, thousand persons



Chernihiv Region

4.1

Estimated number of IT specialists, thousand persons*

2%

% of total number

258

Taxes**,
€m

14

Number of higher education institutions with IT programs

0.4

Number of IT graduates, thousand persons



Donetsk Region

4.3

Estimated number of IT specialists, thousand persons*

2%

% of total number

294

Taxes**,
€m

32

Number of higher education institutions with IT programs

0.6

Number of IT graduates, thousand persons



Khmelnytskyi Region

3.6

Estimated number of IT specialists, thousand persons*

1%

% of total number

212

Taxes**,
€m

16

Number of higher education institutions with IT programs

0.5

Number of IT graduates, thousand persons

IT Regions Profile in 2021



Rivne Region

3.3

Estimated number of IT specialists, thousand persons*

1%

% of total number

195

Taxes**,
€m

21

Number of higher education institutions with IT programs

0.3

Number of IT graduates, thousand persons



Kherson Region

3.1

Estimated number of IT specialists, thousand persons*

1%

% of total number

186

Taxes**,
€m

23

Number of higher education institutions with IT programs

0.5

Number of IT graduates, thousand persons



Sumy Region

3.5

Estimated number of IT specialists, thousand persons*

1%

% of total number

209

Taxes**,
€m

16

Number of higher education institutions with IT programs

0.5

Number of IT graduates, thousand persons



Ternopil Region

2.9

Estimated number of IT specialists, thousand persons*

1%

% of total number

181

Taxes**,
€m

33

Number of higher education institutions with IT programs

1.0

Number of IT graduates, thousand persons

IT Regions Profile in 2021

Volyn Region

2.7

Estimated number of IT specialists, thousand persons*

0.6

Number of IT graduates, thousand persons

1%

% of total number

22

Number of higher education institutions with IT programs

152

Taxes**, ₴m

2.6

Estimated number of IT specialists, thousand persons*

0.3

Number of IT graduates, thousand persons

1%

% of total number

12

Number of higher education institutions with IT specialties

160

Taxes**, ₴m

2.1

Estimated number of IT specialists, thousand persons*

0.9

Number of IT graduates, thousand persons

1%

% of total number

27

Number of higher education institutions with IT programs

141

Taxes**, ₴m

Zakarpatska Region

2.1

Estimated number of IT specialists, thousand persons*

141

Taxes**, ₴m

1%

% of total number

17

Number of higher education institutions with IT programs

0.4

Number of IT graduates, thousand persons

Luhansk Region

1.6

Estimated number of IT specialists, thousand persons*

89

Taxes**, ₴m

1%

% of total number

19

Number of higher education institutions with IT programs

0.2

Number of IT graduates, thousand persons

Ukrainian IT Industry Leaders

**Vision on the future development
of IT in Ukraine and beyond.
The priorities on which companies focus**





Max Maslii

Digicode

13 years of experience **5** offices worldwide

330 specialists in Ukraine

50% growth of the company for three quarters of 2021

Areas of specialization

Fintech	Entertainment	Real Estate	Travel
High Tech	Health Care		

Basic services

Software Development	Business analysis	R&D
Consulting	QA & Testing	UX/UI Design, Art
Animation		

"Everything started with the desire to be a comfortable company for real professionals in Ukraine, and now our goal is to become a not less comfortable company at the global level. We have ambitions and desire to be an active player and influence the industry, and, if we talk about Ukraine, to contribute to its final formation as a new global IT hub".



CSR overview

Support of local IT-communities, cooperation with educational institutions, free two-month career guidance courses for students and people who dream of changing their profession and start an IT-career. The company has a charity budget that is used during the year as required.

E-mail: [maksimm@mydigicode.com](mailto:maksim@mydigicode.com)
 Web-site: www.mydigicode.com



Artur Siebert

Infopulse

30+ years of experience **14** offices worldwide
2,000+ specialists in Ukraine
230+ number of clients

Areas of specialization

Telecom	Finance	Energy	Manufacturing
Software & High Tech		Retail & Ecommerce	

Basic services

Managed Services	Technology & Security Advisory
Intelligent Business	Digital Experience
Solution Engineering	Innovations

"As any business-driven company, Infopulse pursues success. At the same time, we have stayed true to our corporate values for 30 years and have become a reliable supplier and trustworthy partner to our customers.

To achieve sustainable growth, we have identified a vision with clear goals:

- **People:** Providing opportunities for effective cooperation and professional development.
- **Services Portfolio:** Anticipating and satisfying customers' needs; improving their operations.
- **Partners and Customers:** Nurturing a winning network of partners and customers.
- **Planet:** Being a responsible company that thinks globally and acts locally".



CSR overview

Our key initiatives: improving the quality of IT education through cooperation with universities, developing digital transformation solutions for non-business partners, providing assistance to medical institutions and shelters, social and eco team buildings, taking care of specialists' health.

E-mail: team@infopulse.com
 Web-site: www.infopulse.com



Alex Lutskiy

Innovecs

10 years of experience **9** offices worldwide

812 specialists in Ukraine

212% company growth over the last 3 years

Areas of specialization

Supply Chain	Logistics	Gaming	Fintech
HealthTech	Entertainment		

Basic services

Software development	Providing consulting services on digital transformation
----------------------	---------------------------------------------------------

"It is unlikely that new local players will appear on the Ukrainian market of IT service companies within a year. Companies that do not create technological or niche expertise will not be able to compete and will most likely be taken over. There is also a market transformation trend: companies will change the business model from a commodity business to a service/solution. We have also accepted this challenge. One of the Innovecs' tasks is to transform the mindset and business model into a service/solution business. Over the last three years, we have been growing as a service company in several areas where we continue to grow the team's expertise in the domain areas and technological components".

CSR overview

Educational projects, mentorship programs, support for young professionals in developing professional skills and employment, providing opportunities for internship in the company, sustainable community development, equality, and diversity in the workplace.



E-mail:
info@innovecs.com
 Web-site:
www.innovecs.com



Taras Kytsmey

SoftServe

28+ years of experience **50+** offices worldwide

11,000+ specialists in Ukraine

74 Net Promoter Score

Areas of specialization

Healthcare	Oil & Gas	Retail	High Tech
Financial Services	Energy		

Basic services

With technologies, we transform, accelerate, and optimize the way companies do business

“SoftServe is one of the largest IT companies in Ukraine, and we're inspired by the opportunity to contribute to the development of our community and the Ukrainian IT ecosystem. Our initiatives support talent development, quality IT education, and the promotion of Ukraine as an IT partner globally. Those are things that positively impact the industry and growth of our economy at large. 2021 was a very successful year for SoftServe. We have expanded our geography in Ukraine and abroad, attracted more than 5,000 associates. Our company has consolidated the progress in the Middle East and Singapore, and we continue to expand our portfolio of innovative tech projects for our customers around the globe. Finally, SoftServe has joined UN Global Compact to implement sustainable CSR programs that help change the world for the better”.

CSR overview

We ensure a sustainable future for our associates, our company, and the communities in which we live and work across the globe. SoftServe is committed to Diversity & Inclusion, Well-being, Support of IT Education, Empowering our communities, Volunteering, and Charity.



E-mail:
info@softserveinc.com
Web-site:
www.softserveinc.com

TECHIIA ||| || | | | | | | | | | | | |



Oleg Krot Yura Lazebnikov

TECHIIA Holding

10+ businesses within the holding **9** offices worldwide

900+ specialists in Ukraine

1,000+ professionals worldwide

Areas of specialization

Investments	Esports	Engineering	UAV
Plush merchandise manufacturing		Distribution	

Basic services

IT services	Production of premium plush souvenirs		
Media rights, brand integrations, content production in esports		IT product development	
Fast data collection from the surface using UAVs and their analytics			

Yura Lazebnikov, the Managing Partner of TECHIIA holding:

“TECHIIA's development plan is to expand into new markets and new industries. We expect to double the number of companies in our portfolio in the coming year”.

Oleg Krot, the Managing Partner of TECHIIA holding:

“Such growth is possible due to the fact that many of our talents and ideators work in Ukraine. We offer solutions and products that meet the needs of people on all continents. That is why Ukraine attracts more and more investors from abroad, Ukraine has long ceased to be a service economy, and confidently becoming a country for doing business”.



CSR overview

All companies of the holding adhere to the Sustainable Development Strategy and the Code of Ethics. Our charitable projects are implemented by the NGO "Techiia Foundation". The main directions are the provision of hospitals with modern equipment; funding of the Eva Inclusion and Correction Center; support of STEM education projects; assistance in creating inclusive films.

E-mail:
info@techii.com
Web-site:
www.techii.com



Arturas Kvederis

Valtech

28 years of experience **50+** offices worldwide

350 specialists in Ukraine

4,000 IT professionals worldwide

Areas of specialization

Retail	Mobility	Finance	Manufacturing
Travel	Public	Health	

Basic services

Business Consulting	Data & Marketing Execution
Technology Development	Design & Creative

"Valtech has a very ambitious goal to become the largest independent global business transformation agency in the next 3 years globally. Valtech Ukraine has an opportunity to play an important role in the company strategy: our plan is to grow to 1000+ consultants by 2024 and to expand our services portfolio. We believe in the strong talent market growth dynamics in Ukraine. Seeing this trend, we are actively contributing to the development of IT Industry by being a long-standing member of IT Association, supporting multiple local IT Clusters and collaborations with universities.

We are convinced the IT industry in Ukraine will continue its explosive growth as the global demand will only increase, and the talent war will shift from local level to global".

CSR overview

1. Wellbeing (physical & mental health programs for employees/consultants)
2. Society impact (philanthropy, volunteering, education)
3. Sustainability (waste reduction, consumption reduction, replenishing natural resources)



E-mail:
ua.info@valtech.com
Web-site:
www.valtech.com



Andrii Oksenyuk

"We aim to exceed the potential of incredibly strong technical Ukrainian engineering talents and the entrepreneurial mindset of Ciklum to achieve truly extraordinary results. In Ukraine, our key focus is the development of the local IT industry. That is, investing in STEM education, and being an employer of choice for top IT professionals, enabling them to create, grow, and succeed, fulfilling their professional ambitions, and thus driving the country's economy forward.

We are proud to bring the best Western business practices to Ukraine, making it a powerful player on the global market".

E-mail:
comms@ciklum.com
Web-site:
www.ciklum.com

19
years of experience

3,000+
specialists in Ukraine

27
offices worldwide

200+
project teams



Andriy Krupa

"This year ELEKS has celebrated its 30th anniversary. Having reached such a milestone, we keep creating growth opportunities and expanding our presence to new locations. To strengthen our position as a global company, we have established new offices in Switzerland, the Kingdom of Saudi Arabia (KSA) and Japan. So, we get closer to our customers, increase ELEKS' brand awareness and enrich our corporate culture with like-minded people who bring in a fresh perspective on technological challenges we solve. By that, we are developing our enterprise solutions and consulting services, helping our customers realise their innovative visions and create the blueprint for their business success and growth".

E-mail:
EleksInfo@eleks.com
Web-site:
www.eleks.com

30
years of experience

2,000+
specialists worldwide

15
offices worldwide

140+
active clients



Stepan Mitish

"The Ukrainian IT industry has successfully passed the test of another crisis. The business was able to recover growth, and in some cases - even beat previous indicators.

The goal of the Ukrainian office is to maintain growth at 25-30% year on year. Today we are developing new formats of cooperation with specialists from all over Ukraine, expanding our presence. Thus, in 2021, the company opened offices in six regions of the country, and the number of EPAM talents exceeded 12,500 specialists.

We will continue to develop our digital infrastructure, models of interaction with professionals and customers, to invest in expanding the expertise".

E-mail:
ua_career@epam.com
Web-site:
www.careers.epam.ua

28
years of experience

12,500 +
specialists in Ukraine

40+
offices worldwide

51.5%
growth of the company
for the III quarter of 2021



Vitaly Sedler

"We wrap up 2021 with high growth rates, increasing the number of employees by 70%. We've established strong leadership on the talent market and have once again been recognized as the best employer among large Ukrainian IT companies. Intellias is expanding its geography of presence both in Ukraine and abroad. We're currently opening a new development center in Dnipro and planning to invite about 100 specialists there in 2022. Besides, we develop our Kraków office. We have launched the IntelliStart IT School, where young talent will have access to relevant educational programs under the mentorship of Intellias experts. And to our clients we offer end-to-end tech solutions, building up our consulting expertise".

E-mail:
info@intellias.com
Web-site:
www.intellias.com

19
years of experience

2,400+
specialists

7 offices
worldwide

75 active
clients

Luxoft

A DXC Technology Company



Olena Samborska

E-mail: luxoft_official@luxoft.com
 Web-site: www.luxoft.com

"The Ukrainian IT industry has been developing very actively, and I think the coming years will see this tendency continue, as the need for businesses digitization will surely become stronger.

To stay among the market leaders, it is necessary to create the best atmosphere for teams to carry out hybrid work at all levels, both in terms of working conditions and in terms of organizing processes.

The key priority for us is our people – their comprehensive development, comfort, and equal opportunities. In this rapidly changing world, we are guided by our fundamental values that center on nurturing our professionals and their talents".

21
years of experience

3,900+
specialists in Ukraine

109
offices worldwide

1,000+
active clients

N-iX



Andrew Pavliv

E-mail: contact@n-ix.com
 Web-site: www.n-ix.com

"Since N-iX was founded in 2002, the company has gone through several transformational stages and grew to over 1,700 specialists. Today, our clients are industry leaders and Fortune 500 companies who partner with us not only for quality software development services but also to get consulting and comprehensive solutions to address their business problems. So we continue to grow our expertise in cloud solutions, data engineering, embedded software, IoT, Machine Learning, and other innovative technologies.

The reputation of Ukraine as a global tech hub has been growing rapidly. So today we focus on strengthening this image, investing in education, and uniting the efforts of different market players for achieving our common goal – a growing IT sector in Ukraine".

2002
year of foundation of the company

1,700
specialists in Ukraine

10
offices worldwide

100+
active clients



Valery Krasovsky

E-mail:
info@sigma.software
 Web-site:
www.sigma.software

"Ukrainian IT is known for our deep tech expertise, proactive approach, desire and ability to add value to the Clients' business. This is exactly what we at Sigma Software use as a baseline for building our corporate culture of innovation that enables our experts fulfil their potential and help our Clients reach their business goals faster and in a more efficient way.

Our approach specialty lies in the fact that along with providing premium-quality services backed by strong domain expertise we develop and co-invest in the ecosystem of innovative products and solutions that can be further employed to effectively cope with our Clients' business challenges".

19
 years of experience

1,800+
 specialists in Ukraine

22
 offices worldwide

300+
 active clients

SQUAD



Lurii Golovach

E-mail:
info@squad.ua
 Web-site:
www.squad.ua

"The following factors limit the growth of the Ukrainian IT industry: higher education system does not meet the requirements of the industry increase business risks and make it difficult to build long-term relationships with Western partners.

SQUAD is working on the creation of products, so we have the opportunity to attract the best professionals and create the most competitive home security solutions.

Currently, we see the following tasks for the company: Developing a top-notch culture of engineering and composition of excellent teams; Closer cooperation with Ukrainian universities; Working alongside professional associations and lobbying on behalf of the IT community".

5 years of experience

1,200+
 specialists in Ukraine

3 offices in Ukraine

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MZ Hub

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